

AMENDMENT TO THE CLAIMS

1. (Currently amended) A process for purification of CMP-N-acetylneuraminic acid (CMP-NeuAc) without employment of any chromatography treatment, comprising the following steps (1) to (4):

step (1): a step of adding a calcium ion or a ~~magnesium-manganese~~ ion to a CMP-NeuAc-containing solution, thereby causing phosphoric acid, pyrophosphoric acid, and a nucleotide which coexist with CMP-NeuAc to precipitate, wherein the CMP-NeuAc-containing solution is a solution obtained by catalytic reaction of cytidine 5'-triphosphate (5'-CTP) and neuraminic acid (NeuAc) by use of CMP-NeuAc synthetase as a catalyst;

step (2): a step of adding a phosphatase to the CMP-NeuAc-containing solution, thereby converting the nucleotide which coexists with CMP-NeuAc into a nucleoside;

step (3): a step of adding an alcohol having a carbon number of 5 or less, thereby precipitating CMP-NeuAc in the form of salt; and

step (4): a step of collecting the thus-precipitated CMP-NeuAc,
~~wherein steps (1) and (2) are performed in a sequence selected from:~~

~~step (1) and then step (2); or~~

~~step (1) and step (2) performed simultaneously; and wherein these steps are performed in a sequence selected from:~~

~~step (1), step (2), step (3), and then step (4), or~~

step (1) and step (2) are performed simultaneously and then steps (3) and (4) are performed sequentially, and

wherein the thus-precipitated CMP-NeuAc in the form of salt has a purity measured by HPLC of 95% or more.

2-4. (Cancelled)

5. (Currently amended) ~~A~~The process according to claim 1, wherein step (3) and step (4) are performed a plurality of times.

6. (Cancelled)

7. (Currently amended) ~~A-The~~ process according to claim 1, wherein the phosphatase is *Escherichia coli* alkaline phosphatase.

8. (Cancelled)

9. (Currently amended) ~~A-The~~ purification process according to claim 1, wherein the CMP-NeuAc collected in step (4) is subjected to cation exchange reaction for substitution of the cationic moiety of the CMP-NeuAc.

10. (Currently amended) ~~A-The~~ purification process according to claim 9, wherein the cation exchange reaction employs an ion-exchange resin.